

XLVIII.—*On a Collection of Lepidoptera recently received from Abyssinia.* By ARTHUR G. BUTLER, F.L.S., F.Z.S., &c.

I HAVE recently had the pleasure of examining a large collection of insects (chiefly Lepidoptera) from Atbara (Abyssinia), and have been interested to see how many of the species are identical with those of Natal.

There seems to be no *Papilio* at Atbara; but the two species of *Charaxes*, *C. epijasius* and *C. jocaste*, appear to be extremely common.

The following are among the butterflies which have been examined.

### Nymphalidæ.

*DANAINÆ*, Bates.

*Danais dorippus*, Klug.

There were several examples of this interesting species and of its mimic, *Diadema misippus*, in the collection.

*SATYRINÆ*, Bates.

*Melanitis ismene*, Cramer.

This species occurs in three gradational varieties, but all of them with the same coloration above.

*Mycalesis desolata*, n. sp.

Wings above olive-brown, with a narrow pale margin intersected by a black line; two blind blackish spots on the disk, the lower one largest and situated on the first median interspace. Wings below greyish, tinted with pink; external half slightly paler; two central slightly irregular dark brown transverse lines, the inner one arcuate, the outer one with a narrow whitish external border; outer border lilacine greyish; two submarginal sinuated dark brown lines; two dark brown lines close to the margin; fringe dark brown: primaries with three dark brown abbreviated lines across the cell; with five inconspicuous ocelli upon a dusky nebula, the second and fifth largest, black, with testaceous irides, white pupils, and broad lilacine grey zones: secondaries with seven inconspicuous ocelli, the first and fifth largest, the first separated from the series, all black, with white pupils, testaceous irides, and broad lilacine grey zones: body below grey. Expanse of wings 2 inches 1-3 lines.

*Mycalesis pavonis*, n. sp.

Allied to *M. xenias*. Upperside as in the preceding species: wings below paler, crossed by two very irregular parallel central dark brown lines; several dark brown abbreviated lines across the cell, and the discocellulars, dark brown; outer border very pale, intersected by a dark brown submarginal line; marginal line black: primaries with two conspicuous black ocelli with white pupils, pale yellow irides bordered with brown, and whitish zones: secondaries with six ocelli; the first and fourth large, the second and third, and the fifth and sixth, contiguous and nearer to the outer border, all black, with white pupils, pale yellow irides bordered with brown, and concurrent whitish zones. Expanse of wings 2 inches 1 line.

Not rare.

The dark transverse lines on the basal area are sometimes obsolete.

*Mycalesis milyas*, Hewitson.*Ypthima simplicia*, n. sp.

Wings above greyish brown; primaries with a subapical ocellus, black, with two lilacine pupils and a pale yellow iris, encircled at some distance by a dark brown line; secondaries with a smaller subanal black ocellus (obsolete in the male), with a single bluish pupil and pale yellow iris: wings below pale grey, transversely reticulated with brown; primaries with ocellus as above, but the pupils steel-blue, and the iris paler and broader; a diffused brown zone at some distance from it; secondaries with two smaller unipupillated ocelli, one subapical, the other subanal. Expanse of wings 1 inch 4-5 lines.

Common.

## Nymphaliniæ, Bates.

*Charaxes epigasius*, Reiche.

Common.

*Charaxes jocaste*, Butler.

Common.

*Charaxes viola* ♂, Butler.

Rare. The male is very like that sex of *C. ethalion* and *C. theocles*, but has red elongated spots on the outer border above, and the band of secondaries below relieved by a paler background.

*Junonia chorimene*, Guér.

Common.

*Junonia micromera*, n. sp.

Wings above dark brown, clouded with ferruginous, crossed by a broad discal tawny band intersected by a series of black spots, and bifurcate towards costa of primaries; outer border black, with a double series of ill-defined submarginal white lunules; primaries with two tawny spots in the cell; discocellulars and a spot below the cell reddish tawny: wings below much paler, the spots better-defined; the discal band not bifurcate; the basal area not clouded with ferruginous, but dark brown, spotted with large and small testaceous and pale tawny spots; submarginal lunules well-defined; palpi, coxæ, tibiæ, and tarsi whitish. Expanse of wings 1 inch 9 lines.

Not uncommon.

Allied to *J. octavia* and *J. ceryne*.*Hypanis ilythia*, var *goetzius*, Herbst.

Not uncommon.

*Neptis marpessa*, Hopffer.

The figure of this species seems to define the white lines too clearly on the upper surface.

*ACRÆINÆ*, Bates.*Acræa cæcilia*, Fabr.

Not common.

*Acræa Rougetii*, Guér.This seems to be simply *A. eponina*.**Lycænidæ.***LYCÆNINÆ*, Butler.*Lycæna knysna*, var.?, Trimen.*Lampides jobates*, Hopffer.

Rare.

*Lampides sybaris*, Hopffer.

There is a male of this species no larger than *L. Barberæ* of Trimen.

*Lampides amarah*, Guér.*Lampides sigillata*, n. sp.

♂. Allied to *L. pulchra*, smaller: wings above lilac, with a broad brown outer border; fringe of secondaries white: primaries below silvery pale grey, a basi-subcostal brown streak; a spot in the cell, a second below it, a discocellular lunule, a subapical oblique series of five contiguous spots, an oblique litura on first median interspace, an interrupted submarginal line, and a series of seven submarginal dots black, bordered with white: secondaries white; an oblique basal dash, a spot on abdominal margin, two close to costa, a small one subcostal, a large one in the cell, three forming a triangle below the first median branch, one on first median interspace, three beyond the cell, the discocellulars, a submarginal interrupted irregular line, and seven or eight small submarginal spots black; spots at anal angle crossed by a metallic blue line. Expanse of wings 1 inch.

♀. Pale brown above, shot with lilac at the base; primaries with a white spot crossed by a brown discocellular spot; secondaries with two subanal blackish spots. Expanse of wings 1 inch 1 line.

This species also occurs at the White Nile.

*Lampides pulchra*, Murray.

This agrees with Natal examples.

*Lampides cyclopteris*, n. sp.

♂. Wings above dull shining lilac, with a rather broad dentated brown outer border; primaries with the discocellulars blackish; secondaries with the costal area brown; fringe pale brown, a brown marginal line; five submarginal spots, the fourth black, edged outwardly with white and inwardly with ochraceous, the others brown, edged with white: wings below pale whitish brown; markings almost as in *L. osiris*, pale brown, edged with white; secondaries crossed near the base by an oblique line of white-edged black dots; a white-edged subcostal black spot opposite to the end of the cell; only one large black submarginal spot with metallic blue edge and broad orange lunule behind it, all the other submarginal spots pale brown edged with white. Expanse of wings 1 inch 3 lines.

Nearest to *L. osiris*, but the wings much more rounded, broadly brown-bordered, with only one blue-edged spot below.

*Lycænesthes princeps*, n. sp.

♂. Wings above shining lilacine brown, basal area shot with pale cupreous brown, base and interno-basal area of secondaries deep dull purple; a marginal black line; fringe whitish; secondaries with two white scale-tufts; two or three black subanal dots near outer margin; abdominal area brown: wings below much as in *L. bubastus*, pale brown, the external half of primaries and the external two thirds of secondaries traversed by white-bordered pale brown bands; secondaries with two blackish subcostal spots; two anal submarginal black spots dotted with metallic blue, and broadly bordered behind with orange, the one at anal angle bifid, base blackish: body below white. Expanse of wings 1 inch 2 lines.

♀. Above bright purple, with the costal half and external area of primaries and a clavate subcostal streak on secondaries dark brown: primaries with three increasing submarginal pearly whitish spots near external angle; secondaries with a discal angulated series of opaline lunules, five submarginal spots, the fourth largest, rounded behind, almost entirely orange, with a black centre, the others conical, white, with brown centres: wings below much as in the male, but the markings more strongly defined. Expanse of wings 1 inch 5 lines.

*Castalius resplendens*, n. sp.

Wings above snow-white, basal area dusky, the basal and internal areas brilliantly shot with silvery lilacine blue; veins dark brown; a submarginal dark brown line; costa of all the wings dark brown; primaries with a spot of black-brown at the end of the cell; a broad and very irregular black-brown discal band from the costa to just below the first median branch; outer border dark brown, coalescing with the submarginal line towards apex; secondaries with a submarginal series of black spots and a black marginal line: wings below white, spotted and streaked with black; primaries almost exactly as in *C. rosimon*; secondaries somewhat as in *C. rosimon*, but the spots on the basal area smaller, fewer, and more irregular, the disk also crossed by a zigzag series of seven large spots, the inner submarginal series not double, small and lunular; marginal or outer submarginal series smaller. Expanse of wings 1 inch 3 lines.

This beautiful little species of the section '*Castalius*' is more nearly allied to *C. rosimon* than to any other *Lycæna*. In the general pattern and coloration of the upper surface it reminds one of *Iolaus Bowkeri*.

*Castalius cretosus*, n. sp.

Allied to *C. calice* ♀, but the chalky white area forming a broad band through the wings; primaries with three white spots beyond the band, the central one considerably the largest; secondaries with two linear transverse white spots immediately below the central band, and three, submarginal, near the anal angle: wings below quite different from *C. calice*, white, with two oblique basal black bands, interrupted at costa of secondaries, as in *C. rorus*; an irregular submarginal black band, beyond which is a series of black spots, irrorated with steel-blue towards anal angle of secondaries; a very irregular interrupted discal black band; outer margin black, fringe grey; tail black, tipped with white; primaries with the discal band interrupted at the second median branch, and throwing out a fork on upper discoidal interspace; secondaries with the discal band broken into three parts, which lie close to the submarginal band, the uppermost division consisting of two contiguous black spots. Expanse of wings 1 inch 1 line.

In the pattern of the upper surface this species is intermediate between *C. calice* ♀ and *C. carana*; but below it is like no other described species.

## THECLINÆ, Butler.

*Deudorix anta* ♂, Trimen.

There is a female *Deudorix*, in poor condition, which is nearly allied to *D. anta*, but is of a bright blue colour above and wants the black spots on the under surface of secondaries. Can it be a form of the female of that species?

*Hypolycaena philippus* ♀, Fabricius, = *Iolaus orejus*, Hopffer.

## Papilionidæ.

## PIERINÆ, Bates.

*Terias senegalensis*, Boisd.

Common.

*Terias bisinuata*, n. sp.

Allied to *T. brenda*. Sulphur-yellow: primaries with the outer border dark brown, bisinuated, extremely broad at apex so as to form a large subquadrate apical patch; otherwise narrow, with a feeble projection below the first median branch; nervures of secondaries terminating in black dots: wings below slightly paler yellow, nervures of all the wings terminating in black dots; primaries with a rather wide transverse

subapical dull golden streak; no other markings. Expanse of wings 1 inch 10 lines.

A very distinct species.

*Terias regularis*, n. sp.

Allied to *T. Desjardinsii*. Bright golden yellow; outer border and costa of primaries rather broadly black-brown; the outer border regularly sinuated between the nervures, nearly twice as wide on the primaries as on the secondaries: wings below slightly paler, nervures terminating in black dots; borders only visible through the wings; primaries with costal edge blackish, a black dot on upper discocellulars; secondaries with costal area irrorated with dark brown, two purplish brown subcostal dots (one near the base), a third at origin of subcostal branches, a fourth on lower discocellulars ill-defined, a fifth below the median nervure, and a few scattered scales of the same colour on the disk. Expanse of wings 1 inch 1-7 lines.

*Terias candace*, Felder, = *T. zoë*, var., Hopffer.

*Teracolus abyssinicus*, n. sp.

♀. Allied to *T. eris*, but much more heavily marked. Primaries above with the spots on the outer border smaller; the dark brown internal border three times as wide; spot on discocellulars strongly marked, sinuation of outer border rather less pronounced: secondaries with large conical marginal brown spots; base brown; an angular discal series of brown spots: below, the apical area of primaries and the whole of the secondaries pale sordid ochraceous. Expanse of wing 2 inches 2 lines.

There can be no doubt that this is a well marked species: the female always has a yellow tint and the black and brown markings greatly developed. Unfortunately, although I have three females before me, I have not a single male. Both sexes are common.

*Teracolus gaudens*, n. sp.

Allied to *T. chrysonome*, but twice the size. The primaries above bright orange with the base snowy white, the markings black; secondaries sordid sandy orange, base bluish; veins and margin black: primaries below cadmium-yellow; apical area bright sulphur-yellow, base of costa the same colour; transverse irregular discal band and veins on apical area deep orange; secondaries bright sulphur-yellow, base streaked with orange; costa, two central transverse series of spots (the outer

series angulated), and a series of large hastate spots at the terminal extremities of the nervures dark orange. Expanse of wings 1 inch 10 lines.

One example.

This beautiful insect, though on the upperside it looks like a gigantic specimen of *T. chrysonome*, is at once distinguished by the brilliant coloration of the underside.

*Teracolus amelia*, Lucas.

Quite common.

The female of this species differs from the male (sex doubtful in the description by Lucas) in not possessing the diffused orange coloration beyond the black border of primaries.

*Teracolus calais*, Cramer.

Rare.

*Teracolus arne*, Klug.

This form will have to be kept distinct from *T. phisadia* on account of its much greater size and brighter colouring.

*Teracolus antigone* ♀, Boisd.

Somewhat like *T. eione* ♀.

*Teracolus helle*, Butler.

This species was confounded with the following by M. Lucas.

*Teracolus isaura*, Lucas.

The female of this species is much deeper in colour than that sex of *T. helle*, and has a much broader black band across the orange apical area; in fact all the black or blackish markings are heavier.

*Teracolus zera*, Lucas.

I have only seen the male. It was formerly confounded with *T. antevippe*.

*Teracolus epigone*, Felder.

*Teracolus microcale*, n. sp.

♂. Wings above snow-white, basal area irrorated with grey; apical area orange, bordered on all sides with black-brown; veins on outer half of orange area black; secondaries with a marginal row of black-brown conical spots: wings below snow-

white; primaries with a black dot at end of cell; the orange apical area visible through the wing; secondaries with a black dot attached to a golden-orange spot at end of cell. Expanse of wings 1 inch 6 lines.

♀. With the orange apical area narrower and touching the white ground-colour from below the third median nervure; primaries below pale sulphur-yellow at base; secondaries feebly reticulated with olive-brown, a streak of the same colour across the median branches; orange spot at end of cell bright: otherwise as in the male. Expanse of wings 1 inch 3 lines.

*Teracolus anteupompe*, Felder.

♂. Like *T. eupompe*, but without a discocellular dot in primaries, the basal area above less dusky, the borders of the carmine apical patch narrower, the marginal spots of secondaries smaller; discocellular spot of secondaries below small and vermilion. Expanse of wings 1 inch 10 lines.

♀. Much like *T. eupompe* above, but at once distinguished by the sulphur-yellow colour of the secondaries and the apex of primaries on the underside. Expanse of wings 1 inch 11 lines.

Dr. Felder only describes the female.

*Teracolus phœnius*, n. sp.

♂. Like *T. pseudacaste* ♂, but more heavily marked with black. Expanse of wings 2 inches.

♀. Like *T. pseudacaste* ♀, but the basal area tinted with lilacine, its margin strongly excavated on secondaries: primaries with the inner portion of the apical area distinctly reddish, the pale yellow hastate markings between the nervures better-defined and broader; the black spot near anal angle smaller; the brown border of secondaries divided into large pyriform spots; the discocellular black spot obsolete: secondaries below and apex of primaries pale sulphur-yellow, the discal spots almost wholly red; primaries with a red subapical streak, the veins not blackened, no transverse black band near the base; secondaries with the discocellular spot red. Expanse of wings 1 inch 11 lines.

*Teracolus dedecora*, Felder.

*Teracolus citreus*, Butler.

The female of this species has the same general character as the female of *T. eucharis*.

*Teracolus xanthevarne*, Butler.

The female is like that sex of *T. pseudervanthe*, but either white or sulphur-yellow, with the basal half of primaries, the costal and subapical areas dusky, the orange extending beyond the subapical black-brown band, the markings of secondaries much heavier. Expanse of wings 1 inch 9 lines.

Very common.

*Catopsilia aleurona*, n. sp.

♀. Wings above with the base and borders bright sulphur-yellow; central area and costa of secondaries pinkish white; base of costa of primaries rosy; a large black discocellular spot; apex and five marginal spots ferruginous; secondaries with several ferruginous marginal spots; head rosy brown; thorax greenish, clothed with silky white hairs; abdomen yellow, reddish at the sides: wings below bright ochreous, reticulated with ferruginous; a single ferruginous-edged silvery dot at the end of each cell; primaries with internal area white, shading off into sulphur-yellow: body below pale ochraceous; antennæ pink. Expanse of wings 2 inches 9 lines.

Allied to *C. florella*.

*Belenois gidica*, Godart.*Belenois abyssinica*, Lucas.

*Belenois mesentina*?, var. *lordaca*, Walker, =? *augusta*, Olivier.

*Herpenia lacteipennis*, n. sp.

Wings above creamy yellow; primaries marked with black as in *P. eriphia* (Lucas, Lep. Exot. pl. 28); secondaries with the base black, a macular black transverse streak from the costa across the cell to the inner margin; several submarginal black spots, sagittate (with the points upwards) towards apex: primaries below creamy yellow, apical area and external border of median interspaces gravel-brown, three or four paler subapical spots, a subcostal and a median longitudinal grey streak, a black spot on lower discocellular, two subquadrate brown spots placed obliquely upon the median interspaces, a black subquadrate spot near the external angle; secondaries gravel-brown, with diffused paler transverse bands, outer border paler, a few blackish scales scattered over the wings. Expanse of wings 1 inch 7 lines.

By far the smallest species in the genus, and easily recognized by the coloration of the under surface. My friend Mr.

Druce tells me that it has already received a name; but I can find no published description of it, although I have gone carefully through the Records.

*Herpœnia tritogenia*, Klug.

This and the preceding species are evidently not rare in Abyssinia. *H. eriphia*, which I have examined from Angola, is a larger and more creamy-coloured species than *H. tritogenia* (with which it has been united). I think the two forms will prove to be perfectly distinct: the markings are not quite the same on the hind wings.

Hesperiidæ.

*Pamphila inconspicua*, Bertoloni.

*Pyrgus* (close to *P. galba*).

*Thanaos* (two species near *T. Motozi*, Wlgr.).

*Tagiades* (very near to *T. fesus*, Fabr.).

The Hesperiidæ require figures to distinguish them readily from species already described, to which they are nearly allied.

XLIX.—*New and peculiar Mollusca of the Kellia, Lucina, Cyprina, and Corbula Families procured in the 'Valorous' Expedition.* By J. GWYN JEFFREYS, LL.D., F.R.S.

Kelliidæ.

*Montacuta Dawsoni*, Jeffr.

*Montacuta Dawsoni*, British Conchology, vol. ii. p. 216; vol. v. p. 178, pl. xxi. f. 27.

Godhavn, Disco, 5–25 fms.; Station 4, 20 fms.; St. 5, 57 fms.; Holsteinborg, 3–35 fms.; St. 9, 1750 fms.; Greenland (coll. Möller, in Mus. Reg., Copenhagen): Dröbak (J. G. J.): Florö, Norway, 300 fms. (Friele): 'Porcupine' Expedition, 1870, off Cape Sagres, in the Bay of Biscay; a valve only: Palermo (Monterosato).

BODY whitish and gelatinous: *mantle* plain-edged, although at first I thought the edges were ciliated, in consequence of the posterior side of the shell being fringed by the polyparies of a minute Hydrozoon; the incurrent opening is wide and not tubular.